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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/601,982	06/20/2003	Jeffrey S. Lille	SA9-99-091US2 , 38.02D	9104
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KONRAD RAYNES & VICTOR, LLP 315 S. BEVERLY DRIVE # 210 BEVERLY HILLS, CA 90212			EXAMINER KIM, PAUL D	
			ART UNIT	PAPER NUMBER
			3729	

DATE MAILED: 02/03/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/601,982

Applicant(s)

LILLE, JEFFREY S.

Examiner

Paul D. Kim

Art Unit

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 25 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-15 and 30-42 is/are pending in the application.
- 4a) Of the above claim(s) 30-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 15 is/are rejected.
- 7) ☒ Claim(s) 9-14 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

This office action is a response to the amendment filed on 11/25/2005.

#### ***Election/Restrictions***

1. Newly submitted claim 30-37 and 39-42 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons:

Species A, drawn to Fig. 5 for claims 1-15.

Species B, drawn to Fig. 6 for claims 31-37.

Species C, drawn to Figs. 7 and 8 for claims 39-42.

Currently, there is no generic claim.

Since applicant has received an action on the merits for the originally presented invention, Species A for claims 1-15, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 31-37 and 39-42 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

#### ***Specification***

2. The disclosure is objected to because of the following informalities: The phrase "the silicon substrate 204" in line 23 on page 6 of the specification is not clear. There is no "204" in the Figs. 9-12.

Appropriate correction is required.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3, 5-8 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ananth et al. (US PAT. 5,708,540).

Ananth et al. teach a process of making a slider comprising steps of: providing a slider body (SL-I); forming at least one trench in a surface of the slider (as shown in Fig. 4'); and forming a structure (B, silicon carbide as per claim 2) in the at least one trench as shown in Fig. 4' (see also col. 9, line 31 to col. 10, line 50). Ananth et al. also teach that the structure is made of silicon carbide and the material for the structure can be made by a slider material or its mechanical equivalent (col. 10, lines 39-43). Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify a material of the slider of Ananth et al. by the silicon carbide for the purpose of optimal bonding and matching thermal expansivity.

As per claim 3 According to Fig. 4', the thin film transducer (at least read/write element) is formed at trailing edge. However, Ananth et al. do not teach whether the thin film transducer is formed after or before the structure is formed. Even though Ananth et al. silent the producing method for the thin film transducer either after or before the structure is formed, it would be obvious and well known at the time the invention was made to a person having ordinary skill in the art to form the thin film transducer after the

formation of the slider including the structure in order to prevent a damage of the thin film transducer from thermally during the slider manufacturing process. As set forth above, the slider and the structure are made by a material of matching thermal expansivity.

As per claim 5 at least one trench is formed by etching (col. 13, lines 7-15).

As per claims 6 and 8 Ananth et al. also teach that a layer (epoxy) can be provided between the slider and the carbide structure in order to provide an adhesion (col. 15, lines 36-41).

As per claim 7 at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to apply titanium as recited in the claimed invention because Applicant has not disclosed that titanium as recited in the claimed invention provides an advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with Ananth et al. because titanium as recited in the claimed invention would perform equally well such as adhesion in Ananth et al. Therefore, it would have been an obvious matter of design choice to modify the adhesion material of Ananth et al. to obtain the invention as specified in claim 7.

As per claim 15 at the time the invention was made, it would have been an obvious matter of design choice to a person of ordinary skill in the art to provide the structure made by nitride as recited in the claimed invention because Applicant has not disclosed that the nitride structure as recited in the claimed invention provides an

Art Unit: 3729

advantage, is used for a particular purpose, or solves a stated problem. One of ordinary skill in the art, furthermore, would have expected Applicant's invention to perform equally well with Ananth et al. because the nitride structure as recited in the claimed invention would perform equally well such as the silicon carbide for the purpose of optimal bonding and matching thermal expansivity in Ananth et al. Therefore, it would have been an obvious matter of design choice to modify the silicon carbide of Ananth et al. to obtain the invention as specified in claim 15.

5. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ananth et al. in view of Carr et al. (US PAT. 5,761,790).

Ananth et al. teach all of the limitations as set forth above, but fail to teach to form a carbon layer over the slider. Carr et al. teach a process of making a slider made by silicon material including a process of applying a carbon base material (606) over the slider (500) in order to protect the slider from the wear as shown in Fig. 6 (see also col. 2, lines 35-38). Therefore, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify a process of fabricating the slider of Ananth et al. by a carbon base material over the slider in order to protect the slider from the wear.

#### ***Allowable Subject Matter***

6. Claims 9-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

7. Applicant's arguments with respect to claims 1-15 and 30-42 have been considered but are moot in view of the new ground of rejection.

***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul D. Kim whose telephone number is 571-272-4565. The examiner can normally be reached on Monday-Friday between 6:00 AM to 2:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Paul D Kim  
Examiner  
Art Unit 3729